

REMARKS

Reconsideration and allowance are respectfully requested in view of the following remarks.

Claims 1, 2, 4-6, 10-12, 14-17 and 20-24 are pending in the present application. Claims 1, 4, 11 and 23 have been amended. No new matter has been added.

Claim Rejections Under 35 U.S.C. § 103

Claims 1, 2, 4-6, 10-12, 14-17 and 20-24 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Crater et al. (U.S. Patent No. 6,201,996, hereinafter "Crater") in view of Fleischman (U.S. Patent No. 6,507,847, hereinafter "Fleischman"). Applicants respectfully traverse this rejection.

One aspect of the invention relates to web-based monitoring and control of distributed installations, where a web client can interchange data/information with web servers in respective distributed installation using a web client's integration layer. Exemplary embodiments of the present invention combine the data/information from the distributed installations in a uniform structure, and shows them integrally in a user interface.

FIG. 3 of the present application shows an exemplary overview of the architecture of the system. Using the communication links K, the web client 1 communicates with the web servers 2.1, 2.2, . . . 2.n of the distributed installations 3.1, 3.2, . . . 3.n. One or more applications 10 can be loaded into the web client 1 from a "home server" in a first installation 3.1, preferably upon operation for the first time and usually just once, for example as application programs for installation

control with the associated user interfaces. The applications 10 can use an integration layer 11 which connects representative services 12, 13, 14 to the client, which are known as proxies, to communicate with the distributed installations 3.1, 3.2, . . . 3.n. The client proxies 12, 13, 14 are loaded from the appropriate web servers 2.1, 2.2 . . . 2.n of the distributed installations 3.1, 3.2, . . . 3.n and provide the communication link K between the client 1 and the web servers 2.1, 2.2 . . . 2.n of the installations 3.1, 3.2, . . . 3.n.

The distributed installations can store data structures with references which contain pointers to structures or substructures in other distributed installations. FIG. 4 of the present application illustrates an example of data structures integrated from various distributed installations. Referring to FIG. 4, a home installation 3.1 and a second, federated installation 3.2 interchange data with the integration layer 11 of the client 1. For the purpose of data interchange between the home installation 3.1 and the second, federated installation 3.2, a system reference 211 points from an object from the home installation 3.1 to a substructure in the federated installation 3.2. On the client 1, the integration layer 11 is used to generate an all-encompassing, integral display 110 of the data in the installations 3.1, 3.2, . . . 3.n. In this case, the referenced subsection TA of the home installation 3.1 with the federated installation 3.2 is incorporated into the structure in the home installation 3.1.

Claim 1 recites a system for web-based monitoring and control that includes, *inter alia*, an integration layer which communicates via communication links with the web servers in the respective distributed installations to obtain the data/information interchanged with the distributed installations, integrates the data/information

interchanged with the distributed installations, and provides the integrated data/information to one or more of the applications for displaying.

Crater relates to an object-oriented programmable industrial controller with distributed interface architecture. The Examiner relies upon the passage in col. 9, lines 60-66 of Crater as allegedly disclosing the claimed integration layer. Applicants respectfully disagree.

The passage in col. 9, lines 60-66 of Crater discloses a browser that is able to execute applets. A browser cannot be considered as the claimed integration layer. According to exemplary embodiments of the present invention, the integration layer uses communications links to communicate with the web servers in the respective distributed installations, and is provided data/information from the distributed installations. In addition, the integration layer communicates with applications, and presents data/information interchanged with the distributed installations. Therefore, the integration layer according to exemplary embodiments of the present invention is an intermediate layer between the applications and the web servers in the distributed installations. Because of the integration layer, Applications need not be changed when the web servers change.

In contrast, Crater merely discloses a browser that can execute applets, and which access data from a distributed controller. Crater, however, does not disclose that the browser can integrate the data obtained from the distributed controllers and communicate the integrated data to an application. Instead, Crater discloses a web-based application that communicates with distributed controllers directly. Referring to FIG. 2, of Crater, the controllers 1001 and 1002 are directly connected with the controller-based web page displayed in browser 220 via network interfaces.

According to Crater, if there is a change at one of the controllers, such as an address change, the controller-based web page needs to be modified to access that controller at the new address. Crater does not disclose an integration layer that can be the intermediate layer between the controllers and the controller-based web page, where the intermediate layer integrates the data from the controller, and provides the integrated data to the controller-based web page. Because of the lack of the intermediate layer, an application, such as the controller-based web page, is not shielded from the changes at the controller level. At least for the above reasons, Crater does not disclose the claimed integration layer.

Claim 1 also recites a proxy component which, upon execution, provides for communication by the web servers in the distributed installations, said proxy component communicating with the integration layer and the web servers in the distributed installations wherein the distributed installations store data structures with references, where the references contain pointers to data structures and/or substructures in further distributed installations.

In col. 21, lines 35-38, Crater refers to pointers embedded in the controllers, where pointers within each of the controllers point to the others, and cause a selected controller to establish TCP/IP connections with the others. The pointers in Crater merely point to other controllers, and not data structures from the other controllers. Crater at most discloses establishing communications between controllers. Crater does not teach or suggest that the controller stores data structures with references. Furthermore, Crater does not teach or suggest that the references contain pointers to data structures and/or substructures in further distributed installations. At least for the above reasons, Crater does not disclose a

proxy component which, upon execution, provides for communication by the web servers in the distributed installations, said proxy component communicating with the integration layer and the web servers in the distributed installations wherein the distributed installations store data structures with references, where the references contain pointers to data structures and/or substructures in further distributed installations, recited in claim 1.

Fleischman is relied upon as allegedly teaching a method for terminating a query before a pointer loopback condition ensues. It is noted that such features are not recited in claim 1. Fleischman does not remedy the above deficiencies of Crater. Neither does the Examiner contend that Fleischman remedies the above deficiencies of Crater.

In view of the foregoing, claim 1 is patentable. Claims 11 and 23 are patentable at least because they include distinguishing features similar to those of claim 1. The remaining claims are also patentable at least because of their dependencies.

CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is respectfully requested and such action is earnestly solicited.

In the event that there are any questions concerning this amendment, or the application in general, the Examiner is respectfully requested to telephone the undersigned so that prosecution of present application may be expedited.

Respectfully submitted,

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